

L29 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 2001:423358 CAPLUS
 DN 135:26930
 ED Entered STN: 12 Jun 2001
 TI Ink-jet recording papers showing excellent ink absorption
 IN Kaneko, Manabu; Kobayashi, Yukako
 PA Konica Co., Japan
 SO Jpn. Kokai Tokkyo Koho, 15 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM B41M005-00
 ICS B41J002-01
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reproductive Processes)
 Section cross-reference(s): 38
 FAN CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-----------------|------|----------|-----------------|--------------|
| PI | JP 2001158165 / | A2 | 20010612 | JP 1999-344672 | 19991203 <-- |
| PRAI | JP 1999-344672 | | 19991203 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---------------|-------|------------------------------------|
| JP 2001158165 | ICM | B41M005-00 |
| | ICS | B41J002-01 |

OS MARPAT 135:26930
 AB The papers have on supports colorant receptor layers containing water-soluble polymers, preferably poly(vinyl alcs.), and SiO₂ fine particles which are treated with RmSi(OR₁)_n (R = C₁₋₈ alkyl, aryl; R₁ = C₁₋₃ alkyl; m = 1, 2; n = 2, 3; m + n = 4). The colorant layers may contain H₃BO₃ or borates. The supports may be papers obtained by coating polyolefins on raw papers. The treated SiO₂ show higher hydrophobicity, thereby improving porosity of colorant receptor layers and offering excellent ink absorption.
 ST ink jet printing paper colorant receptor; alkoxy silane treated hydrophobic silica ink jet paper; water sol polymer ink jet printing paper; polyvinyl alc ink jet printing paper; polyolefin coated ink jet printing paper; boric acid ink jet printing paper
 IT Silanes
 RL: MOA (Modifier or additive use); USES (Uses)
 (alkoxy, silica in ink-absorbing layers treated with; ink-jet recording papers showing excellent ink absorption)
 IT Paper
 (coated, polyolefin-coated, substrates; ink-jet recording papers showing excellent ink absorption)
 IT Ink-jet recording sheets
 (paper, with ink-absorbing layers containing water-soluble polymers and alkoxy silane-treated silica; ink-jet recording papers showing excellent ink absorption)
 IT Paper
 (printing, ink-jet, with ink-absorbing layers containing water-soluble polymers and alkoxy silane-treated silica; ink-jet recording papers showing excellent ink absorption)
 IT 7631-86-9, Silica, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (colloidal, alkoxy silane-treated, in ink-absorbing layers; ink-jet recording papers showing excellent ink absorption)
 IT 1303-96-4, Borax 10043-35-3, Boric acid, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (ink-absorbing layers containing, for film-forming by crosslinking; ink-jet recording papers showing excellent ink absorption)

IT 9002-89-5, Poval PVA 203 177646-18-3, Poval PVA 235
RL: TEM (Technical or engineered material use); USES (Uses)
(ink-absorbing layers containing; ink-jet recording papers showing excellent ink absorption)
IT 9002-88-4, Polyethylene
RL: TEM (Technical or engineered material use); USES (Uses)
(papers coated with; ink-jet recording papers showing excellent ink absorption)
IT 78-62-6, Dimethyldiethoxysilane 2031-67-6, Methyltriethoxysilane
5314-55-6, Ethyltrimethoxysilane
RL: MOA (Modifier or additive use); USES (Uses)
(silica in ink-absorbing layers treated with; ink-jet recording papers showing excellent ink absorption)
RN 7631-86-9
RN 1303-96-4
RN 10043-35-3
RN 9002-89-5
RN 177646-18-3
RN 9002-88-4
RN 78-62-6
RN 2031-67-6
RN 5314-55-6

L29 ANSWER 2 OF 3 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN 2001-505758 [56] WPIX
DNN N2001-375269 DNC C2001-152231
TI Ink-jet recording paper having a color material accepting layer containing silica particulate treated with a specified compound.
DC A14 A17 A82 F09 G02 G05 P75
PA (KONS) KONICA CORP
CYC 1
PI JP 2001158165 A 20010612 (200156)* 15 B41M005-00 <--
ADT JP 2001158165 A JP 1999-344672 19991203
PRAI JP 1999-344672 19991203
IC ICM B41M005-00
ICS B41J002-01
AB JP2001158165 A UPAB: 20011001
NOVELTY - An ink-jet recording paper has a color material accepting layer containing silica particulate treated with a specified compound and water-soluble polymer on the support.

DETAILED DESCRIPTION - In an ink-jet recording paper provided with a color material accepting layer containing silica particulate and water-soluble polymer on the support, the silica particulate is treated with a compound of formula (1). Formula (1)

R = 1-8C alkyl or aryl;
R' = 1-3C alkyl;
m = integer of 1 or 2, n = integer of 2 or 3, the sum of them is 4.
USE - None given.

ADVANTAGE - The paper has excellent ink absorbency.

Dwg. 1/0

FS CPI GMPI
FA AB; GI
MC CPI: A12-B03; A12-W06; F05-A06B; G02-A05C; G05-F03

L29 ANSWER 3 OF 3 JAPIO (C) 2005 JPO on STN
AN 2001-158165 JAPIO
TI INK JET RECORDING SHEET
IN KANEKO MANABU; KOBAYASHI YUKAKO
PA KONICA CORP
PI JP 2001158165 A 20010612 Heisei
AI JP 1999-344672 (JP11344672 Heisei) 19991203
PRAI JP 1999-344672 19991203
SO PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 2001

IC ICM B41M005-00

ICS B41J002-01

AB PROBLEM TO BE SOLVED: To provide an ink jet recording sheet having excellent ink absorbability.

SOLUTION: In the ink jet recording sheet comprising a color material receiving layer containing silica fine particles and a water soluble polymer on a support, the particles are treated by a compound represented by formula (1), $R_m-Si-(OR')_n$.

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